

REMARKS

Claims 7-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ryding et al (U.S. Patent No. 6,689,221) (hereinafter “Ryding”) in view of Cuijpers et al. (U.S. Patent No. 6,473,161) (hereinafter “Cuijpers”). These rejections are respectfully traversed for at least the following reasons.

In the Office Action dated December 3, 2009, the Examiner asserts that claims 7-9 are rejected as being unpatentable over Ryding in view of Cuijpers. However, Applicants respectfully traverse this rejection because at least the instant application’s specific structural feature of "a conduit pipe for supplying cooling fluid through the fluid bearing portion and the spindle to the substrate mount portion" is neither disclosed nor suggested in the cited references, whether taken separately or in combination with each other.

The Examiner asserts in the last paragraph of page 3 of the Office Action that “[i]t would have been obvious to one of ordinary skill in the art ... to have replaced a fluid bearing portion for holding the spindle as taught by Cuijpers in the place of the bearings holding the spindle and substrate mount portion taught by Ryding since ... a fluid bearing is commonly used to hold a spindle in order to provide a frictionless movement between two structures (emphasis added).”

However, Applicants respectfully submit that Cuijpers discloses a static gas bearing 111 (see, for example, col. 8, lines 51-55) wherein the gas channels 105 are provided in the piston 105 for supply of gas to the gas bearing 111 and 133 (see, for example, col. 9, lines 10-14). However, Applicants respectfully submit that the supply of gas is merely in order for maintaining the pressure in the gas bearing. In other words, Applicants respectfully submit that there is no disclosure, or even a suggestion, in Cuijpers of utilizing the supplied gas for cooling.

Applicants note that Ryding discloses a wafer support assembly 106 in which a cooling fluid is supplied via the fluid lines 121 which is provided in the spindle 114 (see, for example, col. 4, lines 24-34). Also, as the Examiner concedes at page 3 of the Office Action, Ryding does not disclose a fluid bearing portion for holding the spindle. Thus, Applicants respectfully submit that Ryding does not anticipate, nor even suggests, utilizing the cooling fluid for a bearing.

As described above, Applicants respectfully submit that Cuijpers does not anticipate, nor even suggest, utilizing the supplied gas for cooling and Ryding does not anticipate, nor even suggest, utilizing the cooling fluid for a bearing. Accordingly, Applicants respectfully submit that it would not be not obvious for one having ordinary skill in the subject art to make the Office Action's asserted combination of Cuijpers and Ryding.

Nevertheless, even assuming, strictly arguendo, that the references were combined, Applicants respectfully submit that a combination of, i.e., a gas supply for maintaining the pressure in the gas bearing (Cuijpers) and a supply of a cooling fluid via fluid lines (Ryding) still would not result in the configuration of the instant application's invention of "supplying cooling fluid through the fluid bearing portion and the spindle to the substrate mount portion." According to the present invention, as described at page 16, lines 21-25 of the specification of the instant application:

"the fluid (air) for the bearing 51 can be used for cooling, so that it is unnecessary to particularly provide a supply/discharge device, a route, etc. for fluid for cooling the substrate, and the configuration of the cooling device can be simplified."

Accordingly, Applicants respectfully submit that the specific features of the instant application's invention are neither disclosed nor suggested in the cited references, whether taken separately or in combination with each other.

Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. § 103(a) should be withdrawn because Ryding and Cujiper, whether taken separately or combined, do not teach or suggest each feature of independent claim 7 of the instant application. As pointed out by MPEP § 2143.03, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.’ In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).” Since the prior art does not disclose or suggest any of the combinations recited in Applicant's claims, and if anything appears to teach away from the current claim recitations, KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727 (2007), Applicants submit that such recited combinations would not have been obvious in view of the applied references of record, whether taken alone or combined in the manner suggested by the Examiner in the Office Action.

Furthermore, Applicants respectfully assert that the dependent claims 8 and 9 are allowable at least because of their dependence from independent claim 7, and the reasons discussed previously.

CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are in condition for allowance, and respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0573. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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